

REMARKS

After the foregoing amendment, claims 10-26, as amended, are pending in the application. Claims 1-9 have been canceled. Applicant submits that no new matter has been added to the application by the Amendment.

Rejection - 35 U.S.C. § 103

The Examiner rejected claims 10-26 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,466,974 (Nelson et al.) in view of U.S. Patent No. 5,003,472 (Perrill et al.). Applicant respectfully traverses the rejection.

As described by Nelson et al. at col. 1, line 39 to col. 2, line 26, in order to control and coordinate the software associated with the myriad of networked computer and devices, programmers must be fluent in such languages and application programming interfaces (APIs) such as PMI, C++, GDMO and ASNI. Nelson et al. suggests that relatively few programmers are familiar with this diversity of languages. Nelson et al. further states that Java is a tool for producing software efficiently. Accordingly, Nelson et al. is directed to software tools that facilitate writing and incorporating Java network management software for computer and communications network management architectures.

Nelson et al., as shown in Fig. 1 and described at col. 4, line 54 to col. 5, line 39, discloses a system for managing a computer network including an Application layer comprising a user interface 102, a Platform layer comprising network management software implemented in a management information server 104, message protocol adapters (MPA) 108, 112 and 116, and agents 110, 114 and 118, and a Hardware layer comprising representative of devices such as routers, printers etc., e.g. an SNMP device 106. The user interface is described as providing a user the capability for communicating with hardware and software installed on the network. As described at col. 5, lines 14 to 39, the Application layer comprises network management software (MIS) to allow the user operating the user interface 102 to access entities on the network and to allow communications between the entities of the network. The MPAs 108, 112 and 116 are configured to handle communications in a particular communications network protocol such as SNMP (Simple Network Management Protocol), CMIS (Common Management Information Service) or JDMK (Java Development Management Kit). A corresponding agent

110, 114 and 118 provides for coupling the MPAs with one or more devices. Each agent has a corresponding object 120 stored in the MIS. The code defining the agent is written using JDMK.

As would be understood by those skilled in the art, (see claim 1), the system described by Nelson et al. accepts input from a user using a computer network management communication protocol and provides output to the user using a computer network management communications protocol, i.e. SNMP, CMIS etc. This can be clearly seen by examining Fig. 1 which shows a server 104 which sends and receives the network management communications protocol, management protocol adapters (MPA) 108, 112 and 116 which translate the network management communications protocol into a Java development management kit applications program interface (API), and agents which are coupled to the MPA and to the respective devices using the protocols of the devices.

Perrill et al. describes an apparatus for order entry in which numeric identifier data (bar code) scanned from a template is converted by a computer into a human language description for display to a user. A PLU file stored in a computer includes a record for each item on the menu. Each record includes a decoded bar code number for the item and a text description from the item.

In respect to claim 10, the Examiner, states that Nelson et al. discloses all the elements of claim 10, except for the steps of translating the obtained values into human understandable form using information from a data dictionary and presenting the obtained values to the user interface in human understandable form.

Claim 10 recites:

A method using a computer system for automatically presenting values of variables from a selected type of device to a user interface in a human-understandable language, the system including a data engine, a data dictionary containing information for translating the values of the variables in the native language of the device into the human-understandable language, and a data agent which is connected to the device, the method comprising the steps of:

requesting by the data engine from the data dictionary, names of all variables associated with the selected type of device;

obtaining by the data agent from the selected type of device, values of the variables;
obtaining, by the data engine, from the data agent, the values obtained by the data agent;
obtaining from the data dictionary the translating information;
translating, by the data engine, the obtained values of the variables into the human-understandable language using the translating information obtained from the data dictionary; and
presenting, by the data engine, to the user interface, the translated values in the human-understandable language.

Applicant submits that Nelson et al. does not, as stated by the Examiner, teach or suggest obtaining from a data dictionary, information for translating values of variables into human-understandable form, as recited in claim 10.

Initially, Applicant submits that Nelson et al. does not teach or suggest a data dictionary which includes information for translating the values of variable into human-understandable form. The Examiner cites Nelson et al. at col. 10, lines 32-49, as disclosing CD-ROM containing information for translating the values of variables in the native language of the device into human understandable form. However, the CD-ROM is disclosed by Nelson et al. as merely a computer readable media holding "program instructions" and is not disclosed as a data dictionary holding a collection of data element definitions.

"Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation." See, e.g., *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989) MPEP § 2111.02, Rev 2, May 2004. The preamble of claim 10 includes the phrase "the system including ... a data dictionary containing information for translating the values of variables into the human understandable language" clearly limits the structure of the claimed invention to include a data dictionary that contains translation information. Accordingly, since Nelson et al. does not teach or suggest a data dictionary that contains translation information, Nelson et al. does not disclose the structure recited in claim 10.

Also, because Nelson et al. does not include a data dictionary which includes

translation information, Nelson et al. can not possibly teach or suggest obtaining translation information from a data dictionary.

Applicants further submit that Nelson et al. does not teach or suggest automatically presenting values of variables from a selected type of device by the steps of requesting by the data engine from the data dictionary names of all the variables associated with a selected type of device, obtaining by the data agent from the selected type of device, values of the variables, and obtaining by the data engine from the data agent the values obtained by the data agent, as recited in claim 10. Nelson et al. merely describes at col. 7, line 5 to col. 8, line 65 to col. 8, line 65 processes for: (1) opening a connection to an agent to perform get operations on the agent object (Fig. 10), (2) setting/deleting operations on the agent object (Fig. 11) and (3) forming an object name (Fig.12). However, nowhere does Nelson et al. disclose a step of obtaining by the data agent from a selected device, values of the variables as recited in claim 10.

The Examiner further states that Perrill et al. discloses an electronic system using code interpreted by a computer and converted to human language descriptions and display to the user. The Examiner states that it would be obvious to one having ordinary skill in the art at the time the invention was made to incorporate the techniques as taught by Perrill et al. into Nelson et al. The Examiner further states that a skilled artisan would be motivated to take advantage of the translation process in Nelson et al.'s apparatus and found in the Perrill et al. teaching.

To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the teachings of the references. Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP §2142.

Applicant submits that there is no teaching, suggestion in Nelson et al. to incorporate the translation process disclosed in Perrill et al. in order to provide the values of variables from a selected type of device to a user-interface in human understandable form as recited in claim 10. Nelson et al. merely describes a method for managing a computer network that includes a Java development management kit and provides only a passing reference to a user interface designed to allow network operators to communicate with software and hardware installed on the network (col. 4, lines 60-63).~~in~~. Because Nelson et al. does not address any aspect of the user interface, and in particular the language used to present information to the user

interface, it would be incorrect to credit Nelson et al. with suggesting, either expressly or implicitly, providing the user interface with information in human-understandable form. Further, there is no teaching or suggestion in Perrill et al. to provide such a translation process to a network management system such as described by Nelson et al.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959), MPEP §2143.01.

As described above, the addition of the feature of converting a numerical code to a human understandable language as taught by Perrill et al. into the system described by Nelson et al. would require the addition of a database including information for translating the output of the MIS into human-understandable form, and supporting software. The foundation for adding such software does not currently exist. Applicant submits that the addition of such database and software would change the principle of operation taught by Nelson et al.

For all the above reasons, Applicant submits that the combination of Nelson et al. and Perrill et al. does not make claim 10 obvious. Accordingly Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claim 10.

With respect to claim 11, the Examiner states that Nelson et al. and Perrill et al. disclose automatically connecting with a data central which is external to the system. The Examiner equates the management information server with data central. However, Claim 11 recites automatically communicating with an external data central for requested information when the information is not available from the (internal) data dictionary. Applicant submits that: (1) Fig. 1 of Nelson et al. clearly discloses that the management information server is internal to the system disclosed by Nelson et al. and not external, (2) the management information server is disclosed as a server and is not disclosed by Nelson et al. as containing database; and (3) there is no teaching or suggestion of an automatic process in either Nelson et al. or Perrill et al. that communicates with a second data base when requested information is not available from a first database.

In respect to claim 12, the Examiner cites Nelson et al. for disclosing get, set and delete operations. These operations obviously transfer information from one location to another. However, none of the operations in either Nelson et al. or Perrill et al. teach or suggest storing

information received from a second database in a first database when the information has first been requested from the first database and is unavailable and is subsequently received from the second database.

Further, it is respectfully submitted that since claim 10 has been shown to be allowable, claims 11 and 12, dependent on claim 10 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicants respectfully request reconsideration and withdrawal of the § 103 rejection of claims 11 and 12.

The Examiner has rejected claim 13 for the same reasons as claim 10. Claim 13 recites:

A method, using a computer system, for establishing communication with a device, said device having a known network address but having a language and/or protocol for communication with the device that is unknown to the system, said computer system comprising a data engine and a plurality of data agents, each one of the plurality of data agents being associated with a specific language and protocol, the method comprising the steps of:

(a) selecting one of the plurality of data agents based on the network address;

(b) communicating with a data dictionary to obtain names of variables associated with a union of the selected network address and the selected data agent; and

(c) obtaining values of the variables from the device at the selected network address required for determining a type of the device using the language and protocol of the selected data agent, wherein if the required values are obtained, a type of the device is determined from the values of the variables, and if the required values are not obtained, automatically repeating steps (a), (b) and (c) until the required values are obtained.

Nelson et al. describes a network management system for communicating with a device in which: (1) the type of device is known; (2) an address for the device is known and (3)

the language/protocol for the device are known to the user/system. Perrill et al. merely describes a database in which a numerical code is converted to a textual description. In contrast, claim 13 recites a method for communicating with a device in which the address of the device is known, but the type of the device and language/protocol for the device are unknown.

The combination of Nelson et al. and Perrill et al. does not teach or suggest determining the correct data agent (the protocol not being known), the names of the device variables, the values of the variables and the type of device from the values of the variables as recited in claim 13. Further the combination of Nelson et al. and Perrill et al. does not teach or suggest the specific iterative process recited in claim 13 for determining the correct data agent, the names of the device variables, the values of the variables and the type of device from the values of the variables. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claim 13.

Claim 14 is allowable over the combination of Nelson et al. and Perrill et al. for the same reasons that claims 11 and 12 are allowable.

Further, it is respectfully submitted that since claim 13 has been shown to be allowable, claim 14-21, dependent on claim 13 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicants respectfully request reconsideration and withdrawal of the § 103 rejection of claims 14-21. .

The Examiner has rejected claim 22 for the same reasons as claim 10. Claim 22 recites:

*A computer system for communicating with a device
connected to the system at a network address by the use of a data
agent which communicates with the device using the specific
protocol and/or language of the device, said system comprising:
a data engine;
a plurality of data agents operatively connected to
the data engine, at least two of the data agents being adapted to
utilize a different language and/or protocol for communicating
with the device; and*

a data dictionary connected to the data engine, said data dictionary containing information for translating the values of variables in the native language of the device into human understandable language and being adapted to automatically provide names of variables corresponding to both the network address and to the language and/or protocol of the device, wherein the data engine uses the names of the variables provided by said data dictionary to automatically obtain values of the variables from the device, and wherein the data engine automatically translates the values of the variables into human understandable language using the information for translating the values obtained from the data dictionary.

Claim 22 recites a data dictionary that includes: (1) information for translating the values of variables in the native language of a device into a human understandable language and (2) the capability for automatically providing the names of variables corresponding to both a network address and to the language and/or protocol of the device. Such a data dictionary, as discussed above in connection with claim 10, is neither taught or suggested by Nelson et al. Further, Perrill et al. teaches PLU and transaction files which are used separately and does not teach or suggest providing the capability for providing an output corresponding to both first and second inputs (i.e. network address and language and/or protocol). Consequently, since neither Nelson et al. nor Perrill et al. include a data dictionary having the above identified properties, the combination of Nelson et al. and Perrill et al. can not possibly teach or suggest all the elements of claim 22. Accordingly, Applicant requests reconsideration and withdrawal of the § 103 rejection of claim 1.

Claim 23 is allowable over the combination of Nelson et al. and Perrill et al. for the same reasons that claims 11 and 12 are allowable.

Further, it is respectfully submitted that since claim 22 has been shown to be allowable, claims 23-26, dependent on claim 22 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicants respectfully request reconsideration and withdrawal of the § 103 rejection of claims 23-26.

Conclusion

Insofar as the Examiner's objections and rejections have been fully addressed, the instant application, including claims 10-26, is in condition for allowance and Notice of Allowability of claims 10-26 is therefore earnestly solicited.

Respectfully submitted,

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